Abstract

A precementum- and/or cementum-derived chemotactic factor (CCTF) of a tooth of Mammalia, characterized in that a molecular weight measured by SDS-PAGE is 67000±1000.

A process for purifying a precementum- and/or cementum-derived chemotactic factor (CCTF) of a tooth of Mammalia, wherein a molecular weight measured by SDS-PAGE is 67000±1000, which comprises collecting precementum and/or cementum from an extracted tooth of Mammalia and immersing them in saline or collagenase-containing saline with stirring to obtain an eluted ingredient, and purifying the eluted ingredient by molecular weight fractionation, ion-exchange adsorption chromatography and hydroxyapatite adsorption chromatography.

A drug for accelerating adhesion of new connective tissue, comprising the precementum- and/or cementum-derived chemotactic factor (CCTF) as an active ingredient.

[Fig. 1] Gel filtration chromatography

P: Positive control (10% FBS-containing DMEM liquid culture medium)

A: Negative control (liquid culture medium alone)

Fraction A, fraction B

[Fig. 2] DEAE-3SW ion-exchange chromatography

P: Positive control: 10% FBS-containing DMEM liquid culture medium

A: Negative control: DMEM liquid culture medium alone

[Fig. 3] Hydroxyapatitie chromatography

P: Positive control: 10% FBS-containing DMEM liquid culture medium

A: Negative control: DMEM liquid culture medium alone

[Fig. 4]

[Fig. 5] Western blotting of CCTF using anti-BSP-II antibody

[Fig. 6] Western blotting of CCTF using anti-BMP-2 antibody